



9.22 Village of Lloyd Harbor

This section presents the jurisdictional annex for the Village of Lloyd Harbor.

9.22.1 Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
Eileen Schulz, Village Clerk 32 Middle Hollow Rd, Huntington, NY 11743 Phone: 631-549-8893 Email: lhvh@optonline.net	G. Michael McCabe, Superintendent of Public Works 32 Middle Hollow Rd, Huntington, NY 11743 Phone: 631-549-8880 Email: lhhd@optonline.net

9.22.2 Municipal Profile

Population

3,675 (as of Census 2000)

Location

The Village of Lloyd Harbor is located along the border of Suffolk County and Nassau County, NY; to the very north of the Town of Huntington.

Brief History

On March 8, 1685, the Lieutenant Governor granted James Lloyd the royal patent for Horse Neck and formally renamed it the “Manor of Queen’s Village”. Thus, James Lloyd became Lord of the Manor, and Lloyd Neck was annexed to the Town of Oyster Bay, Queens County. It was not until 1885, after a year of much lobbying in the State Legislature, that Lloyd Neck became a part of the Town of Huntington and Suffolk County, thereby seceding from Oyster Bay, Queens County. In 1926, Lloyd Neck and West Neck became incorporated as a municipality which was named Lloyd Harbor.

Governing Body Format

The legislative body of a village is the Board of Trustees, which in our Village is composed of the Mayor and six Trustees.

Growth/Development Trends

The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five years in the municipality. Refer to the map in Section 9.22.8 of this annex which illustrates the hazard areas along with the location of potential new development.



Table 9.22-1. Growth and Development

Property Name	Type (Residential or Commercial)	Number of Structures	Location (address and/or Parcel ID)	Known Hazard Zone*	Description / Status
Hadley Estate (56 acres)	Residential	<10 (4+ acre zoning)	Along Lloyd Lane.	Coastal (bluff) erosion, steep slopes	Currently in front of planning board

* Only location-specific hazard zones or vulnerabilities identified.

9.22.3 Natural Hazard Event History Specific to the Municipality

Suffolk County has a history of natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The table below presents a summary of events that have occurred from 2008 to the present to indicate the range and impact of natural hazard events in the community. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2008, refer to Volume I, Section 5.0 of this plan.

Table 9.22-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	Suffolk County Designated?	Summary of Damages/Losses
February 8-9, 2013	Severe Winter Storm and Snowstorm	DR-4111	Yes- PA (Public Assistance)	Yes
October 27- November 8, 2012	Hurricane Sandy	DR-4085	Yes- IA (Individual Assistance) and PA	Yes. Debris was about 5,000 yd ³ , costing ~\$175K to manage. Power outages ~12-14 days throughout Village. Bluff erosion was severe. Lost all sand at Village Park swim area.
August 26- September 5, 2011	Hurricane Irene	EM-3328 DR-4020	Yes- IA and PA	Yes. Lost all sand at Village Park swim area.

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

IA Individual Assistance

N/A Not applicable

PA Public Assistance

9.22.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Village of Lloyd Harbor. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for Village of Lloyd Harbor.



Table 9.22-3. Hazard Risk/Vulnerability Risk Ranking

Hazard Ranking	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c, e}	Probability of Occurrence ^b	Risk Ranking Score (Probability x Impact)
4	Coastal Erosion	RCV in CEHA: \$24,332,105	Frequent	18
7	Drought	Damage estimate not available	Occasional	0
8	Earthquake	500-Year MRP: \$70,139,810 2,500-Year MRP: \$1,240,131,901	None	0
6	Expansive Soils	Damage estimate not available	Rare	6
2	Flood	1% Annual Chance: \$15,635,244 0.2% Annual Chance: \$20,900,413	Frequent	36
5	Groundwater Contamination (natural)	Damage estimate not available	Occasional	14
3	Hurricane	Category 1 SLOSH: \$44,549,946 Category 2 SLOSH: \$72,117,074 Category 3 SLOSH: \$119,358,221 Category 4 SLOSH: \$182,974,269	Occasional	24
6	Infestation	No measurable impact to property	Frequent	8
1	Nor'Easter	100-Year RCV: \$720,975,178 500-Year RCV: \$22,681,256,507	Frequent	54
1	Severe Storm	100-Year RCV: \$720,975,178 500-Year RCV: \$22,681,256,507	Frequent	54
1	Severe Winter Storm	1% of GBS: \$15,648,443 5% of GBS: \$78,242,214	Frequent	54
4	Shallow Groundwater Flooding	Damage estimate not available	Frequent	18
7	Wildfire	Estimated RCV in Interface/Intermix: \$1,933,338,081	None	0

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on the custom inventory developed for Suffolk County and probabilistic modeling results and exposure analysis as discussed in Section 5.
- c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages and the Tribes within the Town boundary.
- d. Frequent = Hazard event that occurs more frequently than once in 10 years; Occasional = Hazard event that occurs from once in 10 years to once in 100 years; Rare = Hazard event that occurs from once in 100 years to once in 1,000 years; None = Hazard event that occurs less frequently than once in 1,000 years
- e. The estimated potential losses for Nor'Easter and Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.
- CEHA = Coastal Erosion Hazard Area
GBS = General building stock
MRP = Mean return period
RCV = Replacement cost value



National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

Table 9.22-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)	# Policies in 500-year Boundary (3)	# Policies Outside the 500-year Flood Hazard (3)
Village of Lloyd Harbor	70	27	\$225,310	1	0	2	0	68

Source: FEMA Region 2, 2014

Note (1): Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of January 31, 2014. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents the number of claims closed by January 31, 2014.

Note (2): Total building and content losses from the claims file provided by FEMA Region 2.

Note (3): The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file. FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.22-5. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾
		None							

Source: HAZUS-MH 2.1

Other Vulnerabilities Identified

In addition to those identified above, the municipality has identified the following vulnerabilities:

- Power outages due to trees/limbs damaging power grid throughout Village.
- Flooding and erosion of low-lying areas, embankments and along the Village causeway during times of extreme high tides.
- Loss of beach sand in Village Park swim area (~150 feet of shoreline) due to severe storms and/or extreme high tides. Irene and Sandy took away of the sand on this beach, but this is not reimbursable under Public Assistance as it is not considered by FEMA and “engineered beach”. The Village surveys the beach only when conducting a self-funded beach nourishment cycle, perhaps every ten years.
- The Village Hall lacks backup power, and was out for 12-14 days during Sandy. The Village lost power anywhere from 12-14 days, with some isolated properties for up to 4 weeks.



- During coastal storms and at times of extreme high tides, the Village has to close the causeway serving “The Neck” and State Park. Elevating the causeway has been investigated, but has been found to be prohibitively expensive. Closures during extreme high tides are for 2-3 hours.
- The Village has many private roads, which limits the Villages responsibility/authority to mitigate. LIPA does have vegetation management programs that address their rights-of-way on these private roads.
- Village has areas on the Sound shore that have great vulnerability to bluff erosion, particularly during Nor’Easters. Specifically identified are:
 - Property(ies) along Sea Crest Estates on sound side (working with GEI consultants on bluff stabilization project).
 - Property(ies) on Forest Drive
 - Property(ies) on Fiddler’s Green
- Flood vulnerable properties include those on:
 - Beach Drive
 - Lloyd Harbor Road, East of Fiddler’s Green
 - Shore Road
 - Mallard Drive



9.22.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the municipality.

Table 9.22-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dep't. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y	State	Building Inspector	Village enforces NYS Uniform Fire Prevention & Bldg. Code, adopted in 2007 (Updated)
Zoning Ordinance	Y	Local	Building Inspector, Building Zoning Authority	Ch. 205; Adopted 12-15-1966 (Updated)
Subdivision Ordinance	Y	Local	Building Inspector, Planning Board	Ch. 175; Adopted 4-18-1991 (Updated)
Special Purpose Ordinances	Y	Local	Building Inspector, Planning Board	Ch.175 subdivisions and Ch.205 zoning code
Growth Management	N			
Floodplain Management / Basin Plan	Y	Local	Building Inspector, Village Engineer, NYS-DEC	Floodplain Districts, Article VII of Ch.205 adopted 5-16-1983
Stormwater Management Plan/Ordinance	Y	Local	Building Inspector, Village Engineer	Phase II Storm Water regulations, and amendments to Ch. 170 and amendments to Ch. 205 and Ch. 175 of Village Code, adopted in 12- 2008 The Village is very pro-active in stormwater management, and just completed an EPA MS4 inspection (late 2013).
Comprehensive Plan / Master Plan	Y	Local	Planning Board, Board of Trustees	Master Plan of 1971, presently being updated and in draft form
Capital Improvements Plan	Y	Local	Board of Trustees, Village Engineer	Village Improvements; Roads, Buildings, etc.
Site Plan Review Requirements	Y	Local	Building Inspector	Site Permit Review Board, part of the Village Code
Habitat Conservation Plan	Y	Local	Board of Trustees	Conservation Board
Economic Development Plan	N			
Emergency Response Plan	Y	Local	Police	County/Village



Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dep't. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Shoreline Management Plan	Y	Local		Local Waterfront Revitalization Plan, adopted 10-16-1995
Post Disaster Recovery Plan	N			
Post Disaster Recovery Ordinance	N			
Real Estate Disclosure req.	Y	State		NYS Mandate
Other (e.g. steep slope ordinance, local waterfront revitalization plan)	Y	Local	Building Inspector, Board of Trustees	Ch.205
NFIP Flood Damage Protection Ordinance	Y	State	Building Inspector	
NFIP - Freeboard	Y	State	Building Inspector	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other
NFIP - Cumulative Substantial Damages	N			
Coastal Erosion Control Districts	Y	Local, State	Building Inspector, NYSDEC, USACE	Permit Review Board Village has Coastal Overlay Districts (CODs)

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Lloyd Harbor.

Table 9.22-7. Administrative and Technical Capabilities

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Outside Contractor (currently H2M)
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Building Inspector and/or Village Engineer
Planners or engineers with an understanding of natural hazards	Y	Village Engineer
NFIP Floodplain Administrator	Y	Building Inspector (currently under contract with H2M)
Surveyor(s)	N	Outside contractor as needed
Personnel skilled or trained in "GIS" applications	Y	Village Engineer
Scientist familiar with natural hazards in the County.	N	
Emergency Manager	Y	Police Chief
Grant Writer(s)	N	H2M can provide contract support
Staff with expertise or training in benefit/cost analysis	N	Outside contractor as needed
Professionals trained in conducting damage assessments		

Fiscal Capability

The table below summarizes financial resources available to the Village of Lloyd Harbor.



Table 9.22-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG)	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact Fees for homebuyers or developers of new development/homes	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Don't Know
Incur debt through private activity bonds	Don't Know
Withhold public expenditures in hazard-prone areas	No
Mitigation grant programs	Yes
Other	No

Community Classifications

The table below summarizes classifications for the community programs available to the Village of Lloyd Harbor.

Table 9.22-9. Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	TBD	
Public Protection	NP	N/A
Storm Ready	NP	N/A
Firewise	NP	N/A

Notes:

* Higher classification applies to when subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

N/A = Not applicable. - = Unavailable.

The classifications listed above relate to the community's effectiveness in providing services that may impact its vulnerability to the natural hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class one (1) being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule



- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

National Flood Insurance Program

The following section provides details on the National Flood Insurance Program (NFIP) as implemented within the municipality:

Program and Compliance History

Loss History and Mitigation

Planning and Regulatory Capabilities

Administrative and Technical Capabilities

Public Education and Outreach

Actions to Strengthen the Program

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

Land Use Plans – maintain the Master Plan, habitat conservation plan, and shoreline management plan to minimize risk in hazard areas. Updates will include a review of the HMP to ensure that hazard areas are identified in the respective plans.

Building Code, Ordinances, and Enforcement – review planned development against the hazard areas identified in the HMP during zoning and subdivision reviews.

Building Code, Ordinances, and Enforcement – maintain NFIP flood damage prevention ordinance, floodplain management ordinance, and stormwater management ordinance to minimize risk from flood and storm impacts.



Floodplain Management - work together with the County and others to bring CRS training/workshops into the community where appropriate community officials and staff will actively participate

Emergency Response Plan – the village developed and adopted an Emergency Response Plan in order to outline in detail the functions and responsibilities of each village department during a large scale natural or man-made emergency, so that response to emergencies lessens the severity of a disaster on property and the population. This plan includes many pre-event actions that both mitigate disaster losses, and directly supports recovery efforts.

Emergency Response Plan - consider the development of a post –disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans. The debris management plan will incorporate estimates of debris generated by different hazards, as discussed in the risk assessment portion of the HMP.

Public Education and Outreach – Continue to provide a monthly newsletter, village website with links, and direct contact to residents regarding hazards, their potential impacts, and how to minimize risk.



9.22.6 Mitigation Strategy

This section discusses past mitigation actions and status, describes proposed hazard mitigation initiatives, and prioritizations.

Past Mitigation Initiative Status

The following table summarizes progress on the mitigation strategy identified in the 2008 plan for the Village.

Table 9.22-10. Past Mitigation Initiative Status

Project Description	Status	Review Comments
VLH-1: Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage with repetitive loss and severe repetitive loss properties as priority.	Ongoing/continuous	Carry forward, along with specific locations (e.g. Beach Drive, Forest Drive, Lloyd Harbor Road, Sea View Road, Fiddler's Green) that have identified vulnerabilities.
VLH-2: Consider participation in incentive-based programs such as CRS and Storm Ready.	Continuous	Will proceed on as needed basis. Getting familiar with programs.
VLH-3: Continue to support the implementation, monitoring, maintenance and updating of this Plan, as defined in Section 7.0	Continuous/ongoing	This initiative is being removed from the updated mitigation strategy as it refers to activities that are an ongoing and normal part of Village operations. The Village has fully participated in the 2014 update to this plan.
VLH-4: Strive to maintain compliance with and good-standing in the National Flood Insurance program.	Continuous/ongoing	This initiative is being removed from the updated mitigation strategy, and identified as a mitigation capability as it refers to activities that are an ongoing and normal part of Village operations. Initiatives that enhance local floodplain management capabilities and participation in the NFIP have been identified in the Village's updated mitigation strategy.
VLH-5: Continue to develop, enhance and implement existing emergency plans.	Continuous	This initiative is being carried forward as an integration action, specifically identifying that the Village will incorporate the findings and recommendations of this HMP update into amendments/updates to their emergency plans.
VLH-6: Create/enhance/ maintain mutual aid agreements with neighboring communities.	Continuous	This initiative is being removed from the updated mitigation strategy, and identified as a mitigation capability as it refers to activities that are an ongoing and normal part of Village operations.
VLH-7: Support County-wide initiatives identified in Section 9.1 of the County Annex.	Continuous/ongoing	A modified version of this initiative is being carried forward, identifying local participation in specific county-led mitigation programs and initiatives.
VLH-8: Consider the development of a post – disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans.	No progress (lack of resources - funding)	Village will participate in pending countywide debris management planning project.
VLH-9: Enforce the seismic design provisions in the	Discontinue	Standard practice, however the



Project Description	Status	Review Comments
International Building Code for all new buildings and infrastructure.		Village considers this a very low risk

Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

In addition to those strategies in the 2008 plan, the following mitigation projects/initiatives have been completed, or are underway, in the Village:

- Causeway wash-out pad and erosion control – Completed, supported by FEMA funding (406).
- Stabilized a section of eroded embankment supporting Lloyd Harbor Road – Completed. Originally damaged in winter storm of 2010/11, then further damaged by Irene. Currently working with FEMA on reimbursement.
- The “Bath Club” (historic structure) on Shore Road was elevated six feet.
- The Village installed a number of stormwater basins along West Neck Road to collect sediment and debris under a stormwater management grant in 2003-6 (protects water quality in the harbor).
- Installation of drainage structures along School Lane - Complete.
- Drainage improvements of Ft. Hill Drive, Lloyd Lane and Mill Road - Complete.

Since the initial Suffolk County Hazard Mitigation Plan was adopted in 2008, the Village of Lloyd Harbor has identified the following potential mitigation measures:

- Install backup power at Village Hall
- Assess and prioritize options to reduce vulnerability from coastal (bluff) erosion problems.
- Assess and prioritize options to reduce erosion on Lloyd Harbor Road.
- Assess and prioritize options to protect West Neck Road from flooding. .
- Renourish the shoreline along the Causeway that connects Harbor to Lloyd Neck.
- Renourish the shoreline at the Village Park beach.
- Reduce the white tailed deer herd to the recommended density.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Lloyd Harbor identified mitigation initiatives they would like to pursue in the future. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Table 9.22-11 identifies the municipality’s updated local mitigation strategy.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.22-11 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.22-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to new and/or existing structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VLH-1	Renourish the shoreline along the Causeway that connects Harbor to Lloyd Neck.										
	See above	N/A	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	5, 9, 15	Village Board	Medium	Low	Village operating budget	Long-term DOF	Low	NRP
VLH-2	Renourish the shoreline at the Village Park beach.										
	See above	N/A	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	5, 15	Village Board	Low	Low	Village operating budget	Long-term DOF	Low	NRP
VLH-3 (Sandy HMGP LOI #1503)	Install backup power at Village Hall.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 13, 14, 15, 16	See Action Worksheet (VLH-3 – LOI 1503 – 032814)						
VLH-4	Assess and prioritize options to reduce erosion on Lloyd Harbor Road										
	See above	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	2, 13, 15, 16	Village Board	High	High	FEMA FMA,SRL, RFC, HMGP or PDM Grant and Village operating budget for cost share	Long-term DOF	Medium	SIP
VLH-5	Assess and prioritize options to reduce vulnerability from coastal (bluff) erosion problems, and implement as funding becomes available.										



Initiative	Mitigation Initiative	Applies to new and/or existing structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	See above	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	5, 6, 15	Village Board	High	High	Property owner funded currently; could be eligible for FEMA mitigation grant funding	Long-term DOF	Low	NRP
VLH-6	Assess and prioritize options to protect West Neck Road from flooding, and implement as funding becomes available.										
	See above	Existing	Flood, Hurricane, Nor'Easter, Severe Storm	2, 9, 13, 15, 16, 17	Village Board	High	High	FEMA FMA, SRL, RFC, HMGP or PDM Grant and Village operating budget for cost share	Long-term DOF	High	SIP
VLH-7 (former VLH-2)	Work together with the County and others to bring CRS training/workshops into the community where appropriate community officials and staff will actively participate. See following initiative.										
	See above	New & Existing	Flood, Nor'Easter, Hurricane, Severe Storm	1,2,3,7,13	NFIP Floodplain Administrator	High	Low	Village operating budget	Short	Medium	EAP
VLH-8 (former VLH-7)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program) Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities) Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners) Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build regional, county and local capabilities to manage seismic risk, both pre- and post-disaster) Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan). 										
	See above	Both	All Hazards	All Objectives	Suffolk County, as supported by relevant local department leads,	Medium	Low-Medium (locally)	Local (staff resources)	Short	Medium	LPR
VLH-9	Reduce the white tailed deer herd to the recommended density.										
	See above	N/A	Infestation	10	Village	Low	Low	Village operating budget	Short	Low	NRP



Initiative	Mitigation Initiative	Applies to new and/or existing structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VLH-10 (former VLH-1)	Assess and prioritize options to retrofit, purchase, or relocate structures located in hazard-prone areas, and implement as funding becomes available. Specifically identified are properties in the following areas: <ul style="list-style-type: none"> Coastal erosion <ul style="list-style-type: none"> Along Sea Crest Estates on sound side (working with GEI consultants on bluff stabilization project). Property(ies) on Forest Drive Property(ies) on Fiddler's Green Flood vulnerable properties include those on: <ul style="list-style-type: none"> Beach Drive Lloyd Harbor Road, East of Fiddler's Green Shore Road Mallard Drive 										
	See above	Existing	Flood, Nor'Easter, Hurricane, Severe Storm	2, 7, 13	Village	High	High	FEMA FMA, SRL, RFC, HMGP or PDM Grant and Village operating budget for cost share	Long-term DOF	High	SIP
VLH-11	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.										
	See above	Existing	Severe Storm; Severe Winter Storm; Hurricane; Nor'Easter	3, 12, 13, 16	Village Board	High	Low	Village operating Budget	Short-term	High	SIP

Notes:

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FMA	Flood Mitigation Assistance grant program
HMA	Hazard Mitigation Assistance grant program (including FMA, HMGP, PDM)
HMGP	Hazard Mitigation Grant Program
N/A	Not applicable
NFIP	National Flood Insurance Program
NYSOEM	New York State Office of Emergency Management
PDM	Pre-Disaster Mitigation grant program
PSEG	Public Service Electric and Gas (formerly LIPA)





Costs:

Where actual project costs have been reasonably estimated:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

Medium = Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low = Long-term benefits of the project are difficult to quantify in the short term.

Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Timeline:

Short = 1 to 5 years

Long Term = 5 years or greater

OG = On-going program

DOF = Depending on funding

Mitigation Category:

- *Local Plans and Regulations (LPR)* – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- *Structure and Infrastructure Project (SIP)* - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NRP)* – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- *Education and Awareness Programs (EAP)* – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.



Table 9.22-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VLH-1	Renourish the shoreline along the Causeway that connects Harbor to Lloyd Neck.	0	1	0	1	0	0	1	1	0	0	0	1	0	0	5	Low
VLH-2	Renourish the shoreline at the Village Park beach.	0	0	0	1	0	0	0	1	0	0	0	1	0	0	4	Low
VLH-3 (Sandy HMGP LOI #1503)	Install backup power at Village Hall.	1	1	0	1	1	1	-1	0	0	0	1	0	1	1	7	High
VLH-4	Assess and prioritize options to reduce erosion on Lloyd Harbor Road	0	1	0	1	1	1	0	1	0	0	1	0	0	0	6	Medium
VLH-5	Assess and prioritize options to reduce vulnerability from coastal (bluff) erosion problems, and implement as funding becomes available.	1	1	0	0	0	0	0	0	0	0	0	1	0	0	3	Low
VLH-6	Assess and prioritize options to protect West Neck Road from flooding, and implement as funding becomes available.	1	1	0	1	1	1	-1	0	0	0	1	1	0	1	7	High



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VLH-7 (former VLH-2)	Work together with the County and others to bring CRS training/workshops into the community where appropriate community officials and staff will actively participate. See following initiative.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
VLH-8 (former VLH-7)	Support and participate in county led initiatives...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
VLH-9	Reduce the white tailed deer herd to the recommended density.	0	0	1	1	1	1	0	0	0	0	0	0	0	0	4	Low
VLH-10 (former VLH-1)	Assess and prioritize options to retrofit, purchase, or relocate structures located in hazard-prone areas...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
VLH-11	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.	1	1	1	1	0	1	1	0	0	0	1	1	1	1	10	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.

- = Prioritization remained the same as the 2008 HMP.



9.22.7 Future Needs to Better Understand Risk/Vulnerability

None identified.

9.22.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Lloyd Harbor and illustrate the probable areas impacted within the Village. These maps are based on the best available data at the time of the preparation of this Plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Lloyd Harbor has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.22.9 Additional Comments

No additional comments at this time.



Figure 9.22-1. Village of Lloyd Harbor Hazard Area Extent and Location Map 1

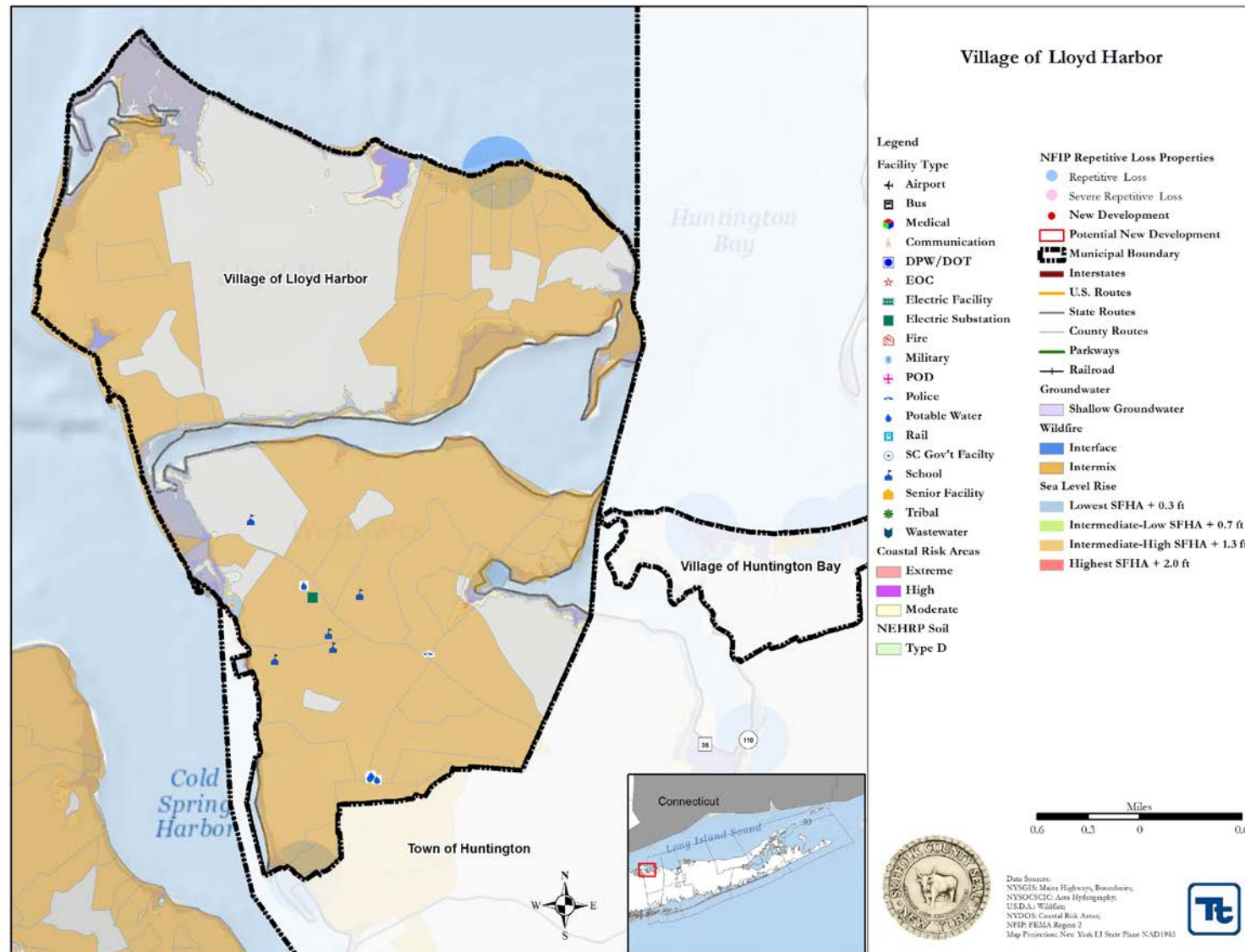
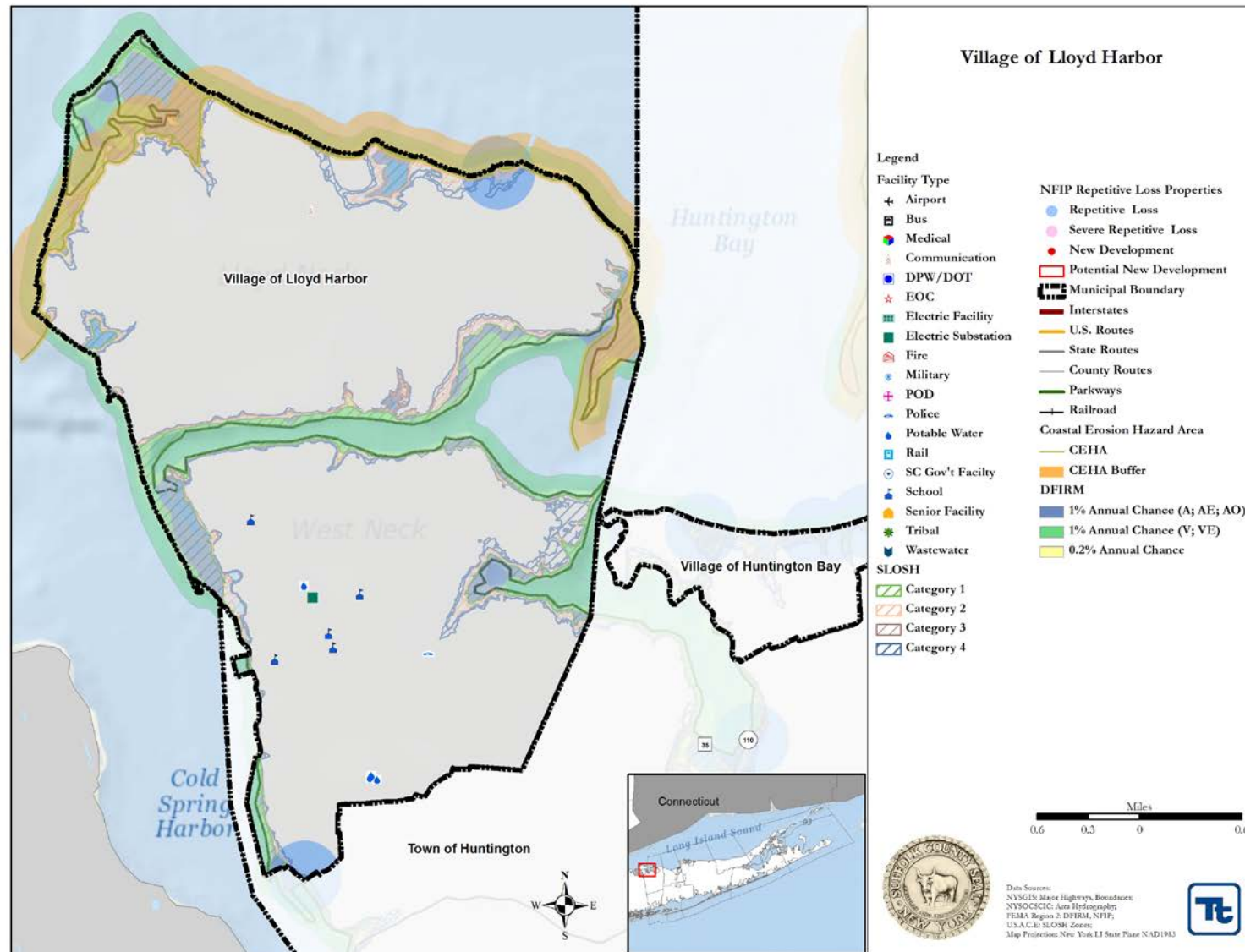




Figure 9.22-2. Village of Lloyd Harbor Hazard Area Extent and Location Map 2





Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

Name of Jurisdiction: Village of Lloyd Harbor, Inc.
Number: VLH-1: Sandy HMGP LOI #: 1503
Mitigation Action/Initiative: Village Hall / Public Works Back-up Power

Assessing the Risk	
Hazard(s) addressed:	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm
Specific problem being mitigated:	Currently our Village Hall & Public Works Dept (housed in the same compound) does not have a permanent source of back-up power. With the most recent storms to hit our area (Irene and Super Storm Sandy) and the extended periods of time with out power (upwards of 8 plus days in each occurrence), has hampered the Villages efforts in assisting the public during times of emergency.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Back-up generator for Village Hall 2. No action 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install a generator capable of powering the necessary buildings. In doing so, it would give the Village the ability to better assist the public during times of emergency by communication, information, also the maintenance, repair and fueling of public works equipment (trucks, payloaders, saws, etc) used in the clearing of debris from roadway for emergency vehicles, utility vehicles and the safety of the public.
Mitigation Action/Project Type	SIP
Objectives Met	2, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing infrastructure
Benefits (losses avoided)	Recent Damages: \$0
Estimated Cost	\$150,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Lloyd Harbor, Inc.: Robert Schwarz, Village Superintendent of Public Works
Local Planning Mechanism	
Potential Funding Sources	HMGP; Village Budget for Local Match



Timeline for Completion	Unknown
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Prioritization

Number: VLH-1: Sandy HMGP LOI #: 1503

Mitigation Action/Initiative: Village Hall / Public Works Back-up Power

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	0	
Multi-Hazard	1	
Timeline	0	
Agency Champion	1	
Other Community Objectives	1	
Total	7	
Priority (High/Med/Low)	High	